Pre-Calculus Good Luck: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1st Semester Test Review Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. If A = {x > -2} and C = {-1 < x < 5} the A U C is

2. If A = {x > -2} and B = {x < 4} then A ∩ B is

3. Evaluate .

4. Evaluate .

5. Evaluate .

6. Evaluate .

7. Evaluate

8. What is the distance between the numbers -3 and 21?

9. Solve the inequality -2 > -3x -11.

10. Solve the inequalities -1 < 2x + 5 < 3.

11. Solve the inequality x2 + 4x - 12 > 0.

12. Solve the inequality .

13. Solve the inequality ≤ 3.

14. Let f(x) = 3x2 + x – 5. Evaluate f(-3).

15. Let . Evaluate f(-1).

16. Let f(x) = 3x2 + 2x – 1. Evaluate f(a+h).

17. For the function f(x) = x2 + 4, find the average rate of change of the function between x = 3 and x = 7.

18. Determine the end behavior of the polynomial P(x) = 2x5 – 3x3 + 25x.

19. Find the zeros of P(x) = x2 + x – 12.

20. Let P(x) = x3 – x2 +11x + 2, find the quotient and remainder when P(x) is divided by

x - 4.

21. By using the remainder theorem, find P(4) for #20.